The Quantum View of the World. EC (Sept. 1981)

Transparencies

1a) Atomic structure

1b) Angular momentum in QM

1c) Directional quantization

2.) Probability Distribution of the electron in a hydrogen atom (ground state)

3.) Directional quantization in the hydrogen atom (p-states)

4.) The Rodney Dangerfield Paradox (1961)

5.) The Two-Colour Doctor

6.) The Two-Colour Doctor in 2 dimensions

7) The Two-Colour Doctor in 3 dimensions (Belinfante's proof)

8.) The Bell ~~Evaluation~~ Experiment

9.) The Bell Inequality

10) The Violation of the Bell Inequality by QM

11.) The Four Correlation Coefficients

12) Locality Principle 12a) Aspect's Experiment

13) The Interaction of Physics and Philosophy

If you cannot do science, teach it
if you can't teach it, philosophize
about it. Let different talents
be encouraged in down, teaching
and philosophizing.

Philosophy is the study and analysis
of concepts, principles and
methods presupposition, underlying
any branch of knowledge.

Basic example. Philosophy Physics
-200 ... -2 +1 ... +200

References: B. d'Espagnat
"The Quantum Theory, Reality"
Sc. Am. Nov. 1979

J. Clauser) A Shimony
Bell's Theorem - Experimental Tests
and Implications
Rep. Prog. Phys. (1978) 41 1881-1927